

Lingfak

US-PAT-NO: 5333404
DOCUMENT-IDENTIFIER: US 5333404 A
TITLE: Long gun stabilizer

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Brief Summary Text - BSTX (23):

A resilient assembly may be selectively attachable to and removable from the rigid panel element. The resilient assembly includes a fluid-containing bladder. A plurality of first connectors are attached to the fluid-containing bladder. The first connectors are capable of connecting with a complementary second connectors on the rigid panel element, whereby the fluid-containing bladder is fixed to the rigid panel element. The fluid-containing bladder may contain a gas such as air or a liquid such as water. The fluid-containing bladder includes a filler aperture and a plug for sealing the filler aperture.

Detailed Description Text - DETX (9):

Turning to FIGS. 7-8, a third embodiment of the invention is shown. Reference numerals are shown that correspond to like reference numerals that designate like elements shown in the other figures. In addition, a resilient assembly 40 is selectively attachable to and removable from the rigid panel element 16. The resilient assembly 40 includes a fluid-containing bladder 42. A plurality of first connectors 44 are attached to the fluid-containing bladder 42. The first connectors 44 are capable of connecting with a complementary second connectors 46 on the rigid panel element 16, whereby the

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US-PAT-NO: 5819461

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TITLE: Apparatuses for steadying a device
to be aimed by a user

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Brief Summary Text - BSTX (13):

Preferably the apparatus includes means for fixing the upper and lower arm holding portions relative to each other, and each of those arm holding portions includes means for pressing against the portion of a user's arm within it from a sufficient number of directions so as to retard motion of the arm portion it holds in any direction perpendicular to the length of that arm portion. The means for pressing against the user's arm can include one or more air bags which can be inflated or deflated by the user.

Detailed Description Text - DETX (5):

The upper and lower arm holding portions also each include inflatable air bags 113 and 114, respectively. The user can selectively pump air into these air bags by means of a pump 116, which has a pump lever 118. The pump also has a quick release button 120 connected to a quick release valve, to allow the user to selectively quickly release air from the air bags. Tubes, not shown in the figures, connect each of the two air bags 113 and the two air bags 114 to the pump 116 and its quick release valve.

Detailed Description Text - DETX (6):

When a user's arm is placed within the upper and lower arm holding portions

and the user inflates the air bags 113 and 114 of each such arm holding portion, the two air bags 113 will expand and press against the users arm from above and on both sides, pressing the arm firmly down against the bottom side of the upper arm holding surface's inner cylindrical surface 108. This will cause the arm to be firmly pressed from enough directions so as to retard the arm's motion in any direction perpendicular to the upper arm's axis. Similarly the inflation of the air bags 114 in the upper arm holding portion 110 will cause those air bags to press against the lower arm from the direction nearest the shoulder on both sides, causing the other side of the lower arm to be pressed against the lower arm holding portion's inner cylindrical surface 112 on the side of that surface which is furthest away from the user's shoulder. This pressure on the lower arm from a plurality of directions will retard the lower arm's motion in any direction perpendicular to the length of that lower arm. The steadying apparatus's ability to firmly hold both the upper and lower arm of a hand used to aim a pointable device, greatly increases the steadiness with which that hand can aim such a device.

Detailed Description Text - DETX (11):

FIG. 3 shows how a user can place the arm rest of the steadying apparatus of FIGS. 1 and 2 upon his or her arm, by pressing his or her elbow into the openings 109 and 111 of the upper and lower arm holding portions, respectively. The openings 109 and 111 are narrower than the width of the average upper and lower arms, respectively, but the molded plastic shell of which the arm rest is made is flexible enough to allow the cylindrical surfaces of both the upper and lower arm holding portions to deform so as to allow the user's arm to be forced

through such openings. During such putting on of the arm rest the air bags 113 and 114 should be deflated. Once the upper and lower arms are in the arm rest, as shown in FIGS. 4-6, the resilience of the arm rests molded shell tends to hold then in the arm rest. To tighten this hold and to make it more firm, the user can pump up the air bags 113 and 114 by repeatedly pushing on the pump lever 118 shown in FIGS. 1 and 2. When the user wants to take the arm rest off, he or she should deflate the air bags by pushing the quick release button 120 and then pull his or her elbow out of the arm rest through the openings 109 and 111.

Detailed Description Text - DETX (18):

The apparatus 100A includes a single air bag 113A on upper arm holding portion and two air bags 114A on the lower arm holding portion. These are inflated by a pump 116A and deflated by a quick release button 120A similar to the corresponding devices shown in FIGS. 1 and 2. Once a user has inserted his arm into both the upper and lower arm holding portions, as shown in FIG. 11, he or she can then inflate the air bags to firmly hold that arm bent at the angle between the axis of the upper and lower arm holding portions. In the embodiment of FIGS. 7-12 this angle is approximately one hundred and twenty degrees.

Detailed Description Text - DETX (37):

The steadying device 100D includes an air bag 113 in the top of its upper arm holding portion 106B and an air bag 114 in the bottom or front of the lower arm holding portion 110B. These can be quickly inflated and de-inflated, respectively, by a pump 116 and quick release button 120 similar to those

discussed above. To supply and remove air under pressure to the air bag 114 in the lower arm holding portion 110B a tube 216 shown in FIG. 23 connects between that air bag and the pump and quick release valve. This tube is allowed to bend with the hinging of the lower arm holding portion relative to the upper arm holding portion.

Detailed Description Text - DETX (39):

First, the upper and lower arm holding portions, 106C and 110C of the apparatus 100E are designed to firmly hold a user arm with adjustable clamping latches 220, rather than by means of air bags as in all the embodiments discussed above. The generally cylindrical surfaces 108C and 112C, respectively, of the upper and lower arm holding portions 106C and 110C each have an opening 109C and 111C, respectively, which runs along the length of that cylindrical surface in a direction parallel to its axis. The walls of the upper and lower arm holding portion are made of a relatively flexible plastic which can bend to effectively alter the radius of the generally cylindrical inner surfaces of those arm holding portions.

Claims Text - CLTX (10):

wherein at least one of said arm holding portions includes one or more inflatable air bags, which, when inflated, increase the firmness with which their corresponding arm holding portion holds a portion of an arm which is in said arm holding portion; and

Claims Text - CLTX (11):

further including means for enabling a user to selectively inflate and deflate said air bags.

Current US Original Classification - CCOR (1):
42/94

fluid-containing bladder 42 is fixed to the rigid panel
clement 16. The
complementary first connectors 44 and the second connectors
46 are shown to be
male snap members and complementary female snap members,
respectively. The
fluid-containing bladder 42 may contain a gas such as air
or a liquid such as
water. The fluid-containing bladder 42 includes a filler
aperture 48 and a
plug 50 for sealing the filler aperture 48.

Current US Cross Reference Classification - CCXR (3):
42/94